

**Project Title:**

Translation and Correction of NSO Kitt Peak Vacuum Telescope Solar Synoptic Data

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**Project Information:**

A 30-year record of daily full-disk observations of the solar magnetic field and helium chromosphere from the National Solar Observatory ended on September 21, 2003. These data have been widely used in support of NASA missions and in ~1000 scientific research papers and theses. The data suffer from various calibration problems and artifacts that can be corrected. The data and derived products are scattered across various media and are not readily accessible by users. We propose to correct known calibration problems, remove artifacts and store the data in a homogeneous environment that is easily accessible by users with widely available tools. We also propose to recalculate many secondary data products, including synoptic maps of several types. This restored data set will allow ongoing and forthcoming NASA solar missions to be placed in a longer context of varying solar magnetic conditions. The data will also be available for continuing research studies of the long-term behavior of the solar magnetic field and for studies of particular past periods of special interest.

**ROSES ID:** NRA-03-OSS-01**Duration:****Selection Year:** 2004**Program Element:** Independent Investigation: LWS

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**Citations:**